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INSECT PEST SURVEY

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STATUS OF THE SOUTHWESTERN CORN BORER IN KANSAS, OKLAHOMA,
AND ARKANSAS, FALL OF 1949 ^{1/}x

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During the fall of 1949 a survey similar to those made in 1947 and 1948^{2/} was conducted in Kansas, Oklahoma, Missouri, and Arkansas to determine the northern and eastern limits of distribution of the southwestern corn borer (*Diatraea grandiosella* Dyar), and also the intensity of infestation in portions of the older infested areas of Kansas and Oklahoma. In each county surveyed 100 stalks of corn in each of one to seven fields were examined. In those counties along the lightly infested northern and eastern borders of infestation 100 stalks in each field were examined, and if no infestation was found, a circuit roughly 300 feet wide was made through the field in search of lodged stalks. Any lodged stalks thus seen were examined for girdling by the borer.

The northern limit of infestation in Kansas was found to be practically the same as in the fall of 1948, the most northerly infestation being found in Rooks County. From that point the limit of infestation ran in a southeasterly direction through Saline, Marion, and Chase Counties. The eastern limit of infestation was found in Labette County in southeastern Kansas. This point is two counties farther east than in 1948, and but one county west of the Kansas-Missouri line.

Of special interest is the eastward extension of infestation into Ottawa and Delaware Counties in northeastern Oklahoma, and the penetration of the borer into Sebastian County, Arkansas, in the vicinity of Fort Smith. These are the first records of the occurrence of the southwestern corn borer in these localities and

^{1/} The information presented in this report was obtained by the Bureau of Entomology and Plant Quarantine in cooperation with the agricultural experiment stations of Kansas and Oklahoma.

^{2/} See Insect Pest Survey Special Supplements (1948, No. 1) and (1948, No. 8)

in Arkansas, and mark an advance of two to three counties during the past year. No infestation was found in Newton and McDonald Counties, Missouri, contiguous to Ottawa and Delaware Counties, Oklahoma. The limits of northward and eastward occurrence, and the percentages of stalks infested in the fields examined, as shown by the 1949 survey, are indicated in figure 1.

In those portions of the older infested areas surveyed, infestation was much lower than in 1948. In all counties surveyed the infestations in the sample examined averaged considerably less than 50 percent of the stalks, except in Barber County, Kansas, where the average was 63 percent and in Pontotoc County, Oklahoma, where the average was 52 percent.

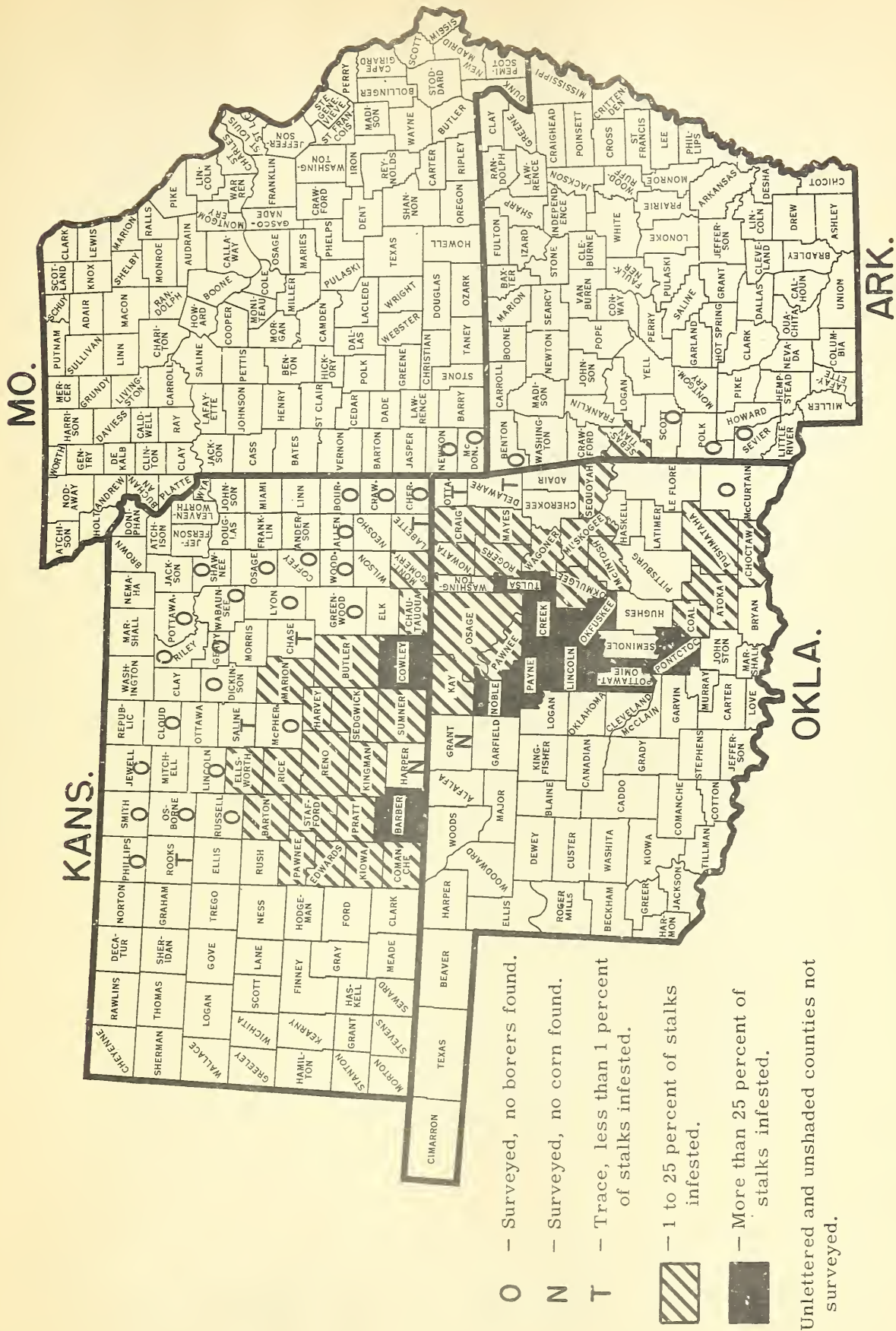


Figure 1. -- Abundance of the southwestern corn borer in counties surveyed, fall of 1949.

